



Montana Department of Transportation
PO Box 201001
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MEMORANDUM

To: See Distribution
From: Kevin Christensen, P.E.
Construction Engineer
Date: October 29, 2008
Subject: Supplemental Specification Revisions: Section 610, Revegetation (Revisions to 4 Subsections)

The Construction Administration Services Bureau is proposing revisions to Section 610, Revegetation, following the Standard Specification Revision Process outlined in the Construction Engineer's Memorandum dated May 2008. The following information is provided.

1. Multiple Revisions to Section 610, Revegetation, will be modified.
2. The Proposed Drafts of the change is attached along with this memorandum.
3. Revisions to the Standard Specifications are needed to address changes in Revegetation definitions, measurement, and payment.
4. Those impacted by the change include:
Construction, Contractors, EPM's
5. The following individuals were consulted and/or involved in developing the proposed revisions:
CAS / CES Bureau, Environmental

*It is requested that written comments on **the proposed revisions only**, be returned to mdtspecifications@mt.gov no later than November 28, 2008.*

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101.03 DEFINITIONS**ROADSIDE DEVELOPMENT**

Those items necessary for:

- A. The preservation of landscape materials and features;
- B. The rehabilitation and protection against erosion of areas disturbed by construction through seeding, sodding, mulching, composting, and the placing of other ground covers; and suitable plantings; and
- C. Other improvements that increase the effectiveness and enhance the appearance of the highway.

The following are the roadside areas:

- A. Area 1. Areas with slopes of 3:1 and flatter.
- B. Area 2. Areas with slopes steeper than 3:1.
- C. Area 3. A 15.0 foot (4.5 meter) wide strip adjacent and parallel to the finished pavement, along both roadsides.

610.01 DESCRIPTION

This work is re-establishing vegetative cover on specified areas by topsoiling, seeding, planting, fertilizing, mulching, composting, soil retention blankets, and sodding.

610.02 MATERIALS

Furnish materials meeting the following Subsection requirements:

Water	713.01
Topsoil	713.05
Seed	713.08
Fertilizer	713.09
Mulch	713.10
Sod	713.11
Soil Retention Blankets.....	713.12
<u>Compost</u>	<u>713.13</u>

610.03.2 Seeding, Fertilizing, and Mulching

A. General. Work the areas to be seeded to the specified line and grade before seeding and fertilizing.

Seed all disturbed areas. Permanent seeding of the finished slopes may require multiple seeding. Fertilizing, mulching, composting, permanent erosion control placement and seeding are specified in the contract.

After all condition seedbed surface, seeding, and fertilizing work is complete, remove and dispose of any oversize material that protrudes 4-inches (100 mm) or more above the conditioned seedbed surface.

- B. **Seeding Season.** The seeding season is October 1, through May 15. Obtain the Department Agronomist's approval to seed outside this period.

- D. **Seed Distribution.**

Deleted: 15

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1. **General.** Apply seed within **48 hours** of the final seedbed conditioning. (should this be less? 24 hours?)

Do not broadcast seed or hydraulic seed when weather conditions prevent uniform seed distribution.

Do not cover seed with more than 1/2 inch (13 mm) of soil.

The seed application rate is specified in the contract.

2. **Drill Seeding.** Drill seed Area 1, and Area 3 using equipment that regulates the seed application rate and planting depth. Acceptable drills are custom seeders, furrow drills, disc drills, or other approved drills. If seed-sowing equipment does not have press wheels, compact the seed using a cultipacker once the ground has been drilled.

Deleted: slopes

Deleted: 3:1 and flatter

Maintain uniform seed distribution in the drill hopper during the work.

Operate all seeding related equipment at right angles to the slope.

Regulate planting depth with depth bands or coulters. Use a drill box partitioned by dividers a maximum 24 inches (610 mm) apart.

Seed rows a maximum 8 inches (205 mm) apart and at right angles to the slope.

3. **Broadcast Seeding.** Hand seeding or mechanical seeding of Area 2, narrow medians, or small areas is permissible.

Deleted: slopes exceeding a 3:1 slope

4. **Hydraulic Seeding.** Hydraulic seeding is permissible for Area 2 or when the seedbed surface is impractical to drill seed.

Deleted: slopes steeper than 3:1

Perform hydraulic seeding in two operations:

- Apply the seed with 1 pound (0.454 kg) of wood or recycled paper mulch per three gallons (11.3 L) of water; and
- Apply the remaining mulch, along with fertilizer, if specified. See Subsection 610.03.2(F)(5).

- G. **Composting.** Use the compost type specified in the contract. Uniformly apply compost over the replaced/graded topsoil within 48 hours of seeding.

1. Area 1. Uniformly incorporate the compost into the upper 4 inches (100 mm) of soil by disking immediately following application.

2. Area 2. Roughen the seeded areas by dozer tracking within 48 hours of broadcast Seeding. After roughening, apply the compost as a top dressing and secure with a guar-based tackifier at a rate recommended by the tackifier supplier.

610.04.8 Composting

Composting is measured by the acre (hectare).

610.05 BASIS OF PAYMENT

Payment for the completed and accepted quantities is made under the following:

Pay Item

Topsoil

Seeding

Fertilizing

Condition Seedbed Surface

Mulch

Compost

Fabricated Mulch and Netting

Sodding

Pay Unit

Cubic Yard (cubic meter)

Acre (hectare)

Acre (hectare)

Acre (hectare)

Acre (hectare)

Acre (hectare)

Acre (hectare)

Square Yard (square meter)

Soil Retention Blanket

Square Yard (square meter)

Include the cost of removing oversized material from the conditioned seedbed surface in the cost of Condition Seedbed Surface.

If the Department supplies the estimated quantity of seeding area, any unused seed will be paid for at the invoice price. The Department would retain ownership of the unused seed. Obtain permission to use the seed on another project within the District.

Payment at the contract unit price is full compensation for all resources necessary to complete the item of work under the contract.